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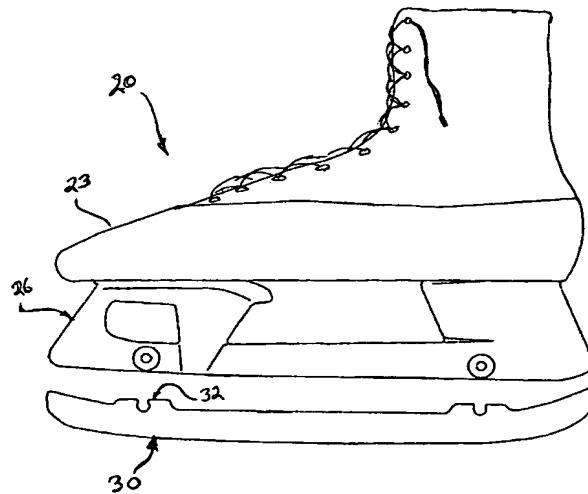
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(54) Title: NITINOL ICE BLADES



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(57) Abstract: A Nitinol ice blade includes a blade body having attachment structure by which it is held in a blade holder of an ice travel device, such as an ice skate or ice boat. The processes and products made by the processes. The processes include selecting a Type 60 Nitinol sheet or bar that has been hot-worked at a temperature of above about 900 °C to a reduction of at least 2% in the dimension of said hot-working. Blade blanks are cut from the sheet, and the blade blanks are heated to between 600°C to about 800°C and immediately quenched to ambient temperature to produce blanks having a hardness of about 48-53RC. The running edge of the blade blanks a ground to a desired profile and sharpness. The ground blades may then be heated to an elevated temperature of about 850-1000°C and immediately quenched to produce a hardness at the edge of above 56RC.

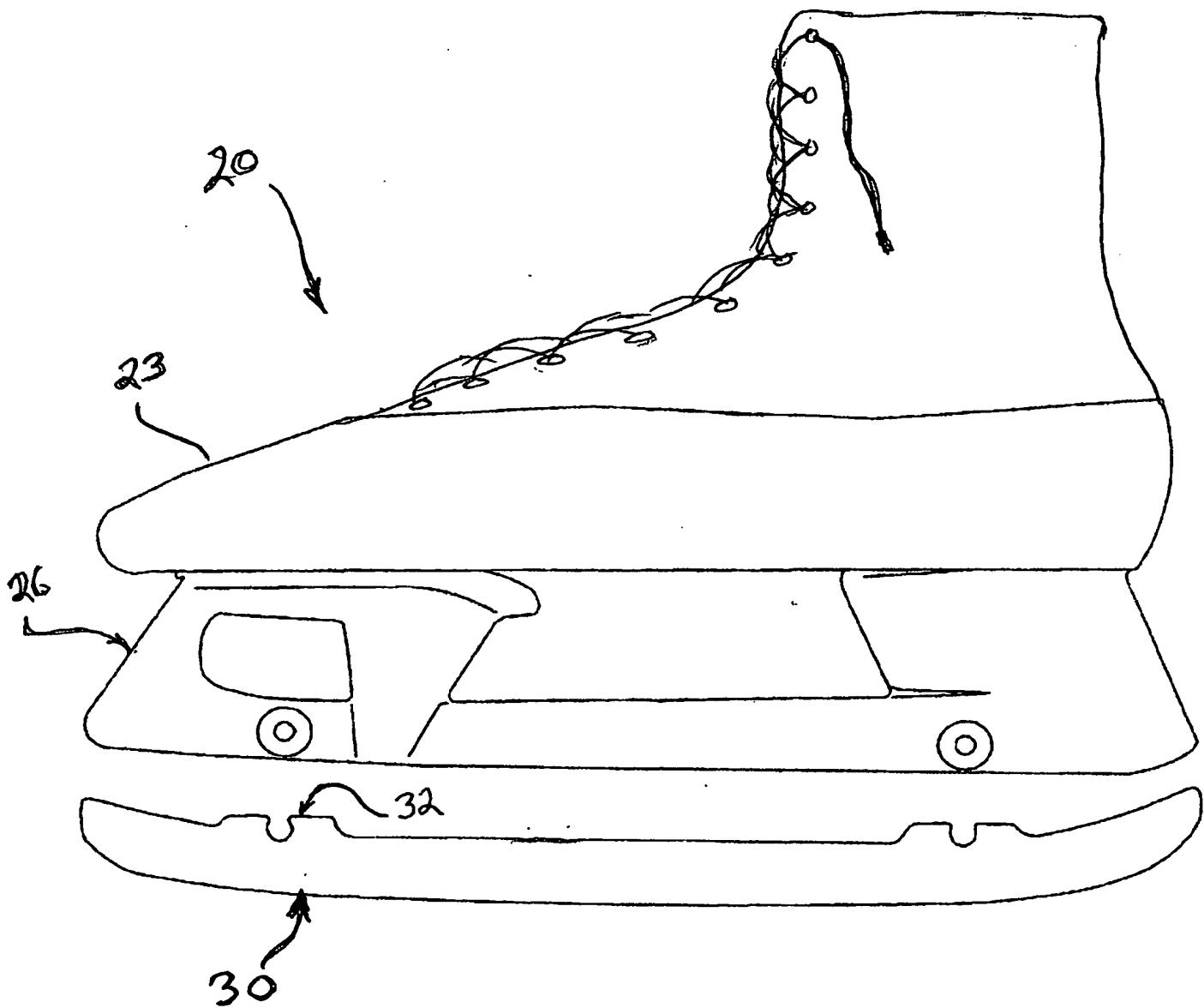


Fig. 1

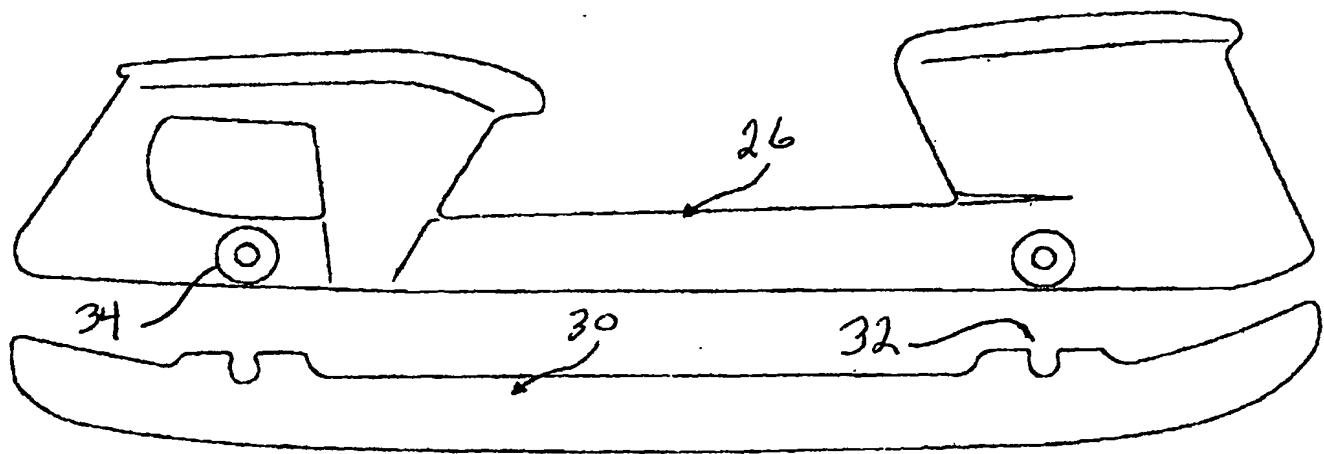


Fig. 2

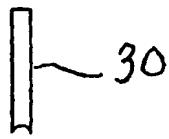


Fig. 3

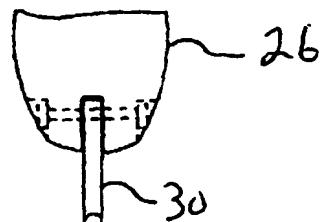


Fig. 4

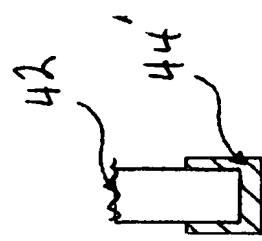
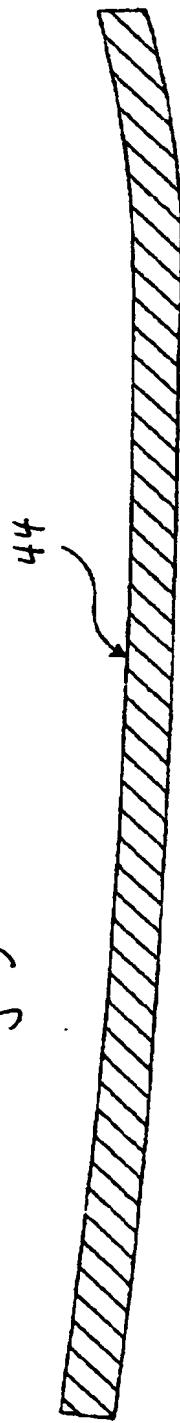
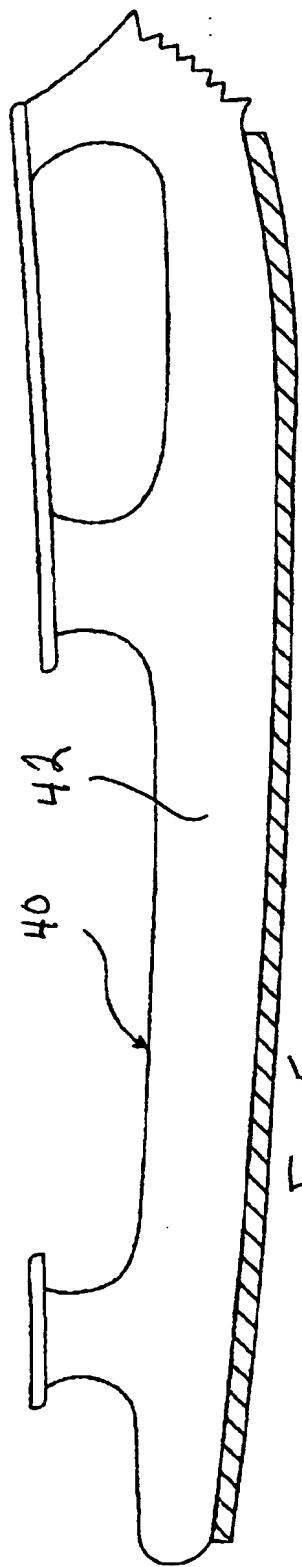
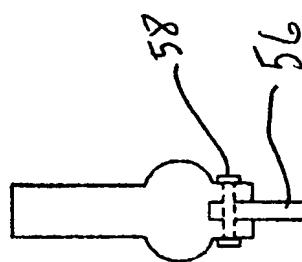
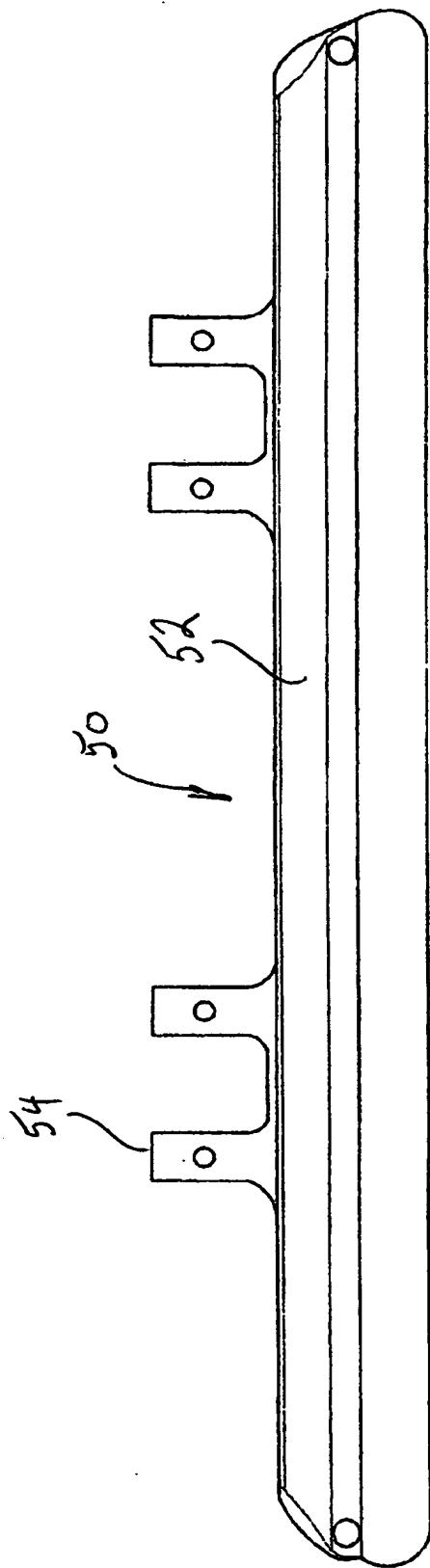


Fig. 8



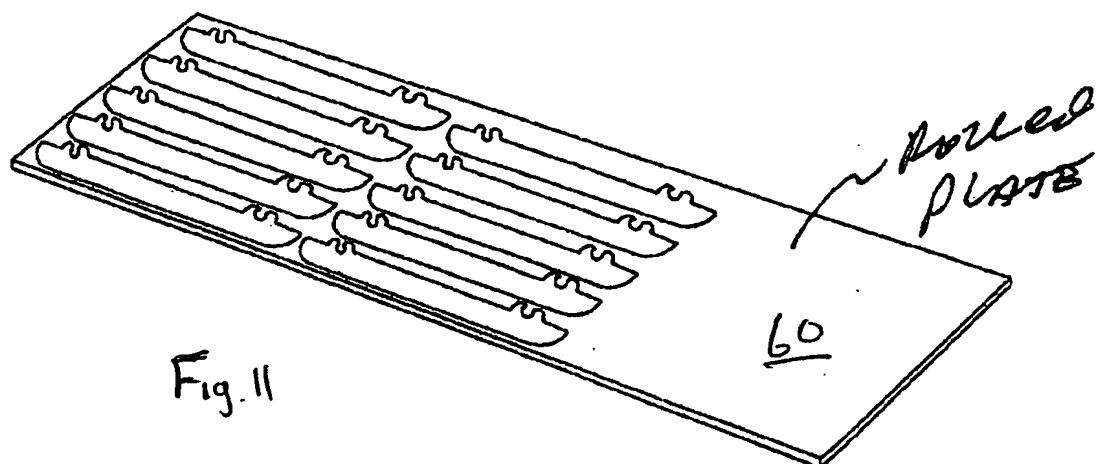


Fig. 11

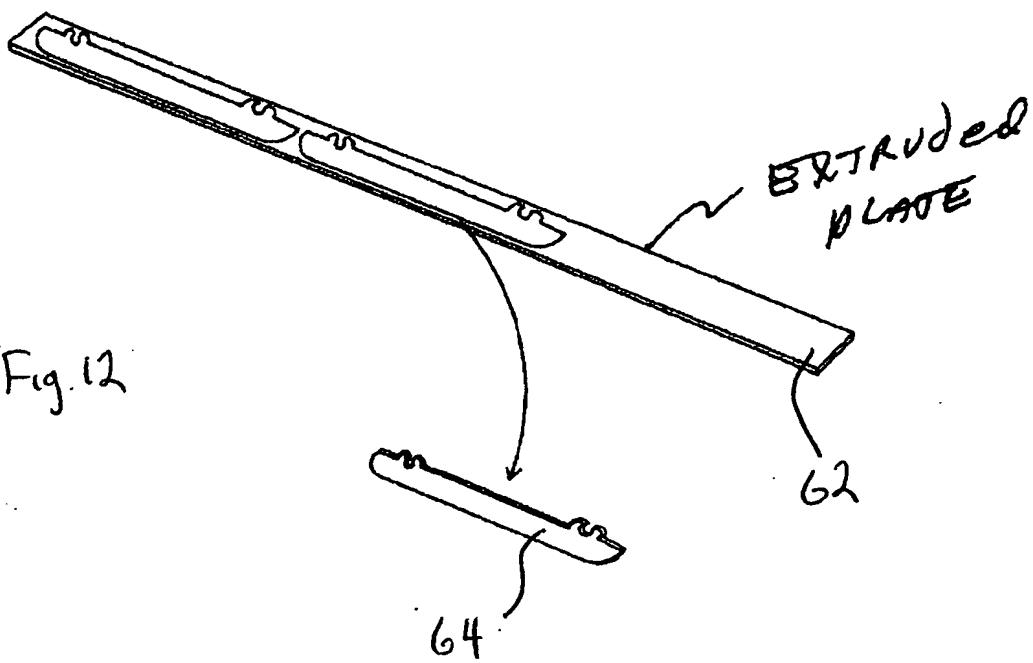
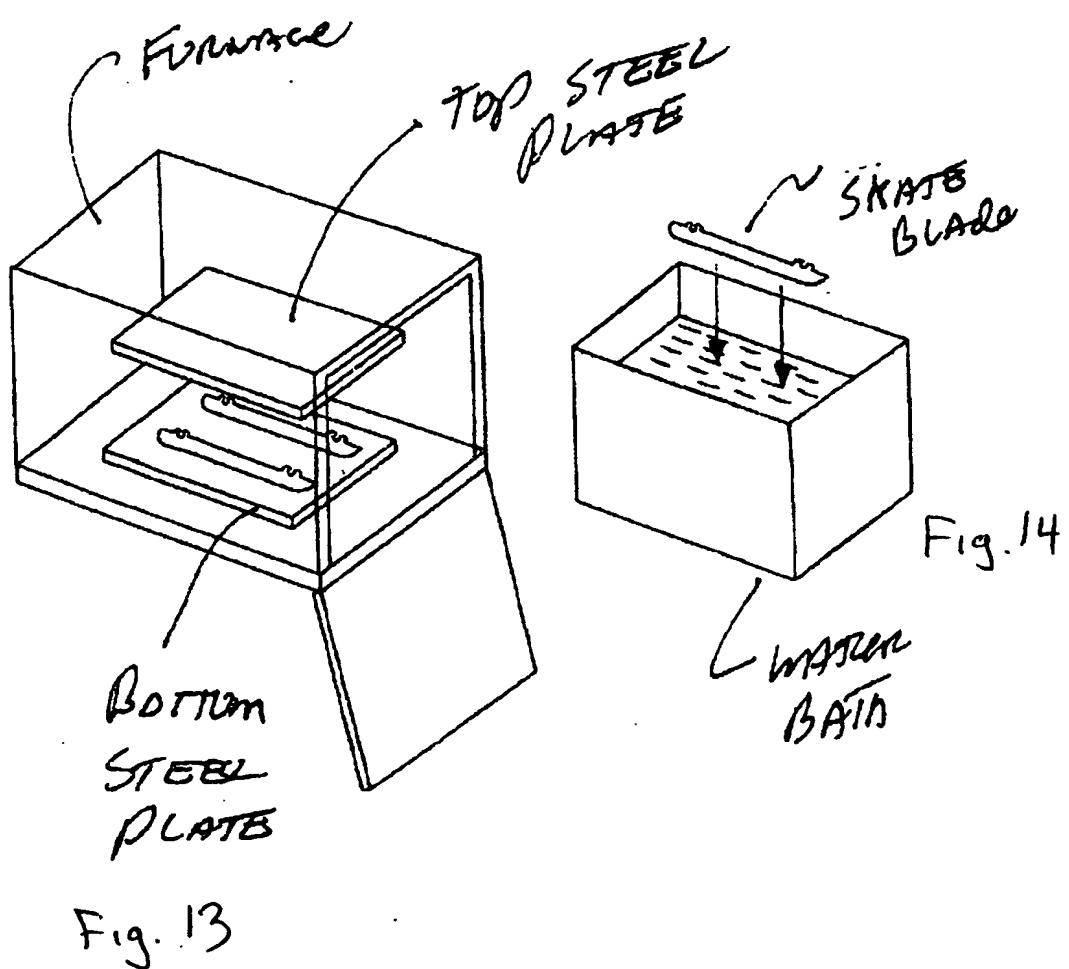


Fig. 12



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